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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/718,961

11/21/2003

Clifford C. Bampton

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EXAMINER

MCNELIS, KATHLEEN A

ART UNIT

PAPER NUMBER

1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/718,961

Applicant(s)

BAMPTON, CLIFFORD C.

Examiner

Kathleen A. McNelis

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-15, 17-20 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15, 17-20 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### Claims Status

Claims 1-7, 9-15, 17-20 and 24 remain for examination wherein claims 1, 6, 14 and 20 are amended.

### Status of Previous Rejections

The following rejections are withdrawn in view of arguments and amendments to the claims:

- Claims 1-7 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention,
- Claims 1 and 9 under 35 U.S.C. 102(b) as anticipated by in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese Patent 06-272012 (JP '012),
- Claims 3 and 11 under 35 U.S.C. 103(a) as obvious over Japanese Patent 06-272012 (JP '012) as applied to claims 1 and 9 and in further view of Rongti (2001), and
- Claims 18 and 19 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997).

The following rejections are maintained:

- Claims 1, 2, 9, 10, 20 and 24 under 35 U.S.C. 102(b) as anticipated by Abbott et al. (AeroMet implementing novel Ti process, 1998) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998),
- Claims 1, 2, 9, 10, 20 and 24 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997),
- Claims 4, 5, 7, 12, 13 and 15 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Blue et al. (1996) as applied to claims 1 and 9,

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- Claims 6 and 14 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Blue et al. (1996) or Zhuang et al. (1997) as applied to claims 1 and 9,
- Claim 17 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997) as applied to claim 9 and in further view of Marcus et al. (U.S. Pat. No. 5,182,170),
- Claim 18 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997) as applied to claim 9 and in further view of Das et al. (1999), and
- Claims 3 and 11 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997), and
- Claims 18 and 19 under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997).

#### **DETAILED ACTION**

##### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

##### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 9, 10, 20 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by Abbott et al. (AeroMet implementing novel Ti process, 1998) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998).

Abbott et al. is applied as set forth in the 07/25/2007 office action.

Regarding the amendment to claim 1, Abbott et al. discloses a quantitative blend of powers in the ratio of Ti-6Al-4V (p. 25).

Regarding the amendment to claim 20, Abbott et al. discloses elemental powder mixes (i.e. blend) of Ti-Al-V (p. 25).

Claims 1, 2, 9, 10, 20 and 24 are rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997).

Abbott et al. in view of Ryan or Blue et al. or Zhuang et al. is applied as set forth in the 07/25/2007 Office action.

Regarding the amendment to claim 1, Abbott et al. discloses a quantitative blend of powers in the ratio of Ti-6Al-4V (p. 25).

Regarding the amendment to claim 20, Abbott et al. discloses elemental powder mixes (i.e. blend) of Ti-Al-V (p. 25).

Claims 4, 5, 7, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Blue et al. (1996) as applied to claims 1 and 9.

Abbott in view of Blue et al. is applied as set forth in the 07/25/2007 Office action.

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) in view of Blue et al. (1996) or Zhuang et al. (1997) as applied to claims 1 and 9.

Abbott in view of Blue et al. or Zhuang et al. is applied as set forth in the 07/25/2007 Office action.

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Regarding the amendments to claims 6 and 14, Abbott et al. discloses using elemental powder mixes (i.e. blend) (p. 25).

Claim 17 is rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997) as applied to claim 9 and in further view of Marcus et al. (U.S. Pat. No. 5,182,170).

Abbott et al. alone or in view of Ryan or Blue et al. or Zhuang et al. and further in view of Marcus et al. is applied as set forth in the 07/25/2007 Office action.

Claim 18 is rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997) as applied to claim 9 and in further view of Das et al. (1999).

Abbott et al. alone or in view of Ryan or Blue et al. or Zhuang et al. and further in view of Das et al. is applied as set forth in the 07/25/2007 Office action.

Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997).

Abbott et al. alone or in view of Ryan or Blue et al. or Zhuang et al. is applied as set forth in the 07/25/2007 Office action.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as obvious over Abbott et al. (AeroMet implementing novel Ti process, 1998) alone or in view of Ryan (U.S. Pat. No. 4,725,509) or Blue et al. (1996) or Zhuang et al. (1997).

Abbott et al. in view of Ryan or Blue or Zhuang et al. is applied as set forth in the 07/25/2007 Office action.

***Response to Arguments***

Applicant's arguments filed 11/27/2006 regarding rejections under Abbott et al. as primary reference have been fully considered but they are not persuasive.

Arguments are summarized as follows:

1. Aeromet (i.e. Abbott et al.) does not teach a blend of a base metal and alloying metal powder, but rather discloses melting a first metal and adding a second metal to the melt. Further, the secondary references do not make up for this shortcoming,
2. The instant invention is a method for selective sintering where powder is spread on a platform and sintered with an energy beam, whereas Aeromet discloses melting a substrate and then adding powder.

Examiner's responses are as follows:

1. Aeromet (i.e. Abbott et al.) discloses elemental powder mixes for Ti-6Al-4V, which is a powder blend. Further, Aeromet (i.e. Abbott et al.) discloses producing this by mechanically mixing elemental powders (last paragraph of p. 25).
2. Claim 1 recites that the alloying metal is melted (line 15). Claim 1 does not recite selective laser sintering. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, since Aeromet discloses a powder blend, spreading the blend on a substrate and melting the alloying element as in instant claim 1, the selection of any order of performing process steps is prima facie obvious in the absence of any new or unexpected results (MPEP section 2144.04 IV, C).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen A. McNelis whose telephone number is 571 272 3554. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR



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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAM

01/21/2007



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